

Creating A Greener Energy Future For the Commonwealth

American Recovery and Reinvestment Act: Opportunities for Massachusetts

Ian Bowles

*Secretary
Executive Office of
Energy and Environmental Affairs*

Philip Giudice

*Commissioner
Department of Energy Resources*

Patrick Cloney

*Executive Director
Massachusetts Clean Energy Center*

April 9, 2009

Agenda

- Introduction
- Grants with Action Requested
- Competitive Grants
- Formula Grants
- Bonds
- Tax Credits
- Energy-related opportunities by agencies other than the Department of Energy or Department of Treasury
- Federal Requirements
- Introduction to Clean Energy Center

Introduction

Circumstance

- Cleaner energy is an important part of our future
 - Governor Patrick's key priority
 - Substantial accomplishments in 2008 legislative session provides foundation for strong enduring support
 - Important progress underway – ramped energy efficiency with least cost procurement, renewables and green communities
- 2009 Challenges are formidable
 - We are in the midst of a *global* recession that began 15 months ago
 - State unemployment rate reached 7.8 percent at the end of February, the highest rate since March 1993
- Massachusetts is well positioned to maximize productive results from energy stimulus resources

Stimulus Opportunity

- \$62 billion related to energy stimulus
 - More than \$42 billion in appropriations
 - More than \$20 billion in tax credits
- Activities include
 - Greatly expanded energy efficiency and renewable energy
 - Research, development, demonstration, and deployment of pre-commercial technologies
 - Worker training
- Program types include
 - About \$30.7 billion in competitive grants and loan guarantees to public and private entities
 - About \$11.3 billion in block grants to states and local governments
 - About \$20 billion in tax credits and tax-preferred bonds

Policy Context

- Significant progress in Massachusetts energy policy in the last two years supporting clean energy sector growth, the fastest growing sector in the state, that situates us well to take advantage of Federal economic recovery funds
- ***Green Communities Act***
 - Utility companies required to pursue “all cost-effective efficiency”
 - Utility energy efficiency programs are expanding quickly, spending for electric utility programs increasing by ~40% to \$180 million in 2009 and gas utility programs increasing by 20% to \$30 million
 - Green Communities Program established as one-stop shop on energy-matters for municipalities and take advantage of economic recovery funds available to them
 - Annual renewables goals increased by 200%
- ***Green Jobs Act***
 - Clean Energy Center was created to catalyze clean energy cluster
 - CEC is establishing the Energy Efficiency Skills Institute to train workforce
- ***Global Warming Solutions Act***
 - 80% GHG reduction by 2050

Future Opportunity

- The energy provisions of the economic recovery build on our existing efforts and are aligned with our long-term goals as a state
- We are fully committed to continue capitalizing on clean energy opportunities identified even after the economic recovery period

Questions and Answers

- Please submit questions about energy opportunities in ARRA during or after this webinar via the online form at
 - <http://masscec.com/index.cfm?cdid=10353>
- Answers to questions received will be posted to the CEC and DOER/EEA recovery websites
 - <http://masscec.com>
 - <http://www.mass.gov/eea/recovery>

Grants With Action Requested

Creating A Greener Energy Future For the Commonwealth

Alternative Fueled Vehicles Pilot Grant Program

Program Description:	Incremental cost for the purchase of alternative fuel and advanced technology vehicles or supporting infrastructure
Program Type:	Competitive Federal grant
Funding:	<ul style="list-style-type: none">- \$300 million- Up to 30 awards, ranging from \$5 million to \$15 million
Applicant:	State, local governments, and metropolitan transit authorities (or combination of these) in collaboration with an existing Clean Cities coalition. However, primary applicant can pool applications from public and private entities.
Important Dates:	<p>Applications to DOER – May 18, 2009</p> <p>Round 1 Application to DOE – May 29, 2009</p> <p>Round 2 Application to DOE – Sept. 30, 2009</p>
Action Requested:	Review Program Opportunity Notice and Submit Application posted at http://masscec.com/index.cfm?cdid=10361 and at http://www.mass.gov/doer

State Energy Program

Program Description:	Grants to states increase energy efficiency and develop alternative and renewable sources
Program Type:	Formula grant to state upon receipt of application
Funding:	\$3.1 billion nationally; \$54.9 million for Massachusetts
Applicant:	State energy office
Important Dates:	Initial Application filed with DOE March 23, 2009 MA Request for Information from solar industry April 10, 2009 MA Competitive Solicitation for proposals to be issued in April, 2009 Final Application due to DOE May 12, 2009
Action Requested:	Review Request for Information from solar industry at http://masscec.com/index.cfm?cdid=10361 or at http://www.mass.gov/doer and submit comments Review initial application filed with DOE for background on Competitive Solicitation on the same web pages

Creating A Greener Energy Future For the Commonwealth

Energy Efficiency and Conservation Block Grants

Program Description:	Grants to reduce fossil fuel emissions, reduce total energy use, and improve energy efficiency in transportation, building, and other sectors
Program Type:	Formula grant to states and local governments
Funding:	\$2.8 billion nationally under formula grants; \$42 million for Massachusetts
Applicant:	States or local governments over 35,000 in population; states award sub-grants to localities less than 35,000 in population
Important Dates:	Application to DOE due May 26 for states and June 25 for local governments
Requested Action:	Review guidance document at: http://www.mass.gov/Eoeea/docs/doer/ARRA/gc/StimulusFundingGuidance.pdf

Tune in to webinar:

10 am April 22, 2009 for localities greater than 35,000

10 am May 6, 2009 for localities less than 35,000

DOE Competitive Grants

Competitive Grants

Amount (\$ mil)	Program	Program Description
6,000	Innovative Technology Loan Guarantee	Loan guarantees for renewable energy systems, transmission technologies, and pilot or demonstration biofuel projects <ul style="list-style-type: none">- Pre-stimulus solicitation recently closed- Awaiting guidance for new solicitations
378	Transportation Electrification	Electric drive vehicle demonstration and evaluation, transportation sector electrification, and education program <ul style="list-style-type: none">-DOE application due May 13

Competitive Grants

Amount (\$ mil)	Program	Program Description
2,000	Advanced Battery Manufacturing	Facilities for battery manufacturing, battery supplier manufacturing, lithium ion battery recycling, and electric drive component manufacturing –DOE Application due May 19
400	Energy Efficiency and Conservation Block Grant - Competitive	Reduce fossil fuel emissions and total energy use and improve energy efficiency in transportation and buildings –Applicants must be states and local governments – Detailed guidance/schedule not issued

Competitive Grants

Amount (\$ mil)	Program	Program Description
2,500	Energy Efficiency and Renewable Energy Research	<p>Applied research, development, demonstration</p> <ul style="list-style-type: none"> –\$800 million for biomass –\$400 million for geothermal –\$50 million for increasing energy efficiency of information and communications technology –Detailed guidance/schedule not issued
4,500	Smart Grid Investment Program	<p>Demonstration and implementation of smart grid technologies</p> <ul style="list-style-type: none"> –\$100 million for worker training –Detailed guidance/schedule not issued

Competitive Grants

Amount (\$ mil)	Program	Program Description
3,400	Fossil Energy R&D Program	Demonstration of carbon capture and sequestration, energy efficiency improvements, and fossil energy R&D <ul style="list-style-type: none">–\$1.52 bil for industrial carbon capture and energy efficiency improvements–\$1 bil for fossil energy R&D–\$800 mil for Clean Coal Power Initiative–\$50 mil for geologic site characterization–\$20 mil for sequestration training and research–Detailed guidance/schedule not issued

Competitive Grants

Amount (\$ mil)	Program	Program Description
1,600	Science Program	<p>Basic research in energy sciences, biological and environmental sciences, computational science, and materials and chemical sciences</p> <ul style="list-style-type: none"> –\$1.2 bil announced for infrastructure at DOE national labs –Detailed guidance/schedule for remainder not issued
400	Advanced Research Projects Agency – Energy (ARPA-E)	<p>Enhance economic and energy security through promoting translational energy research and enhancing technology development</p> <ul style="list-style-type: none"> - Detailed guidance/schedule not issued
21,478*	TOTAL	

*Includes Competitive Grants listed in earlier section

DOE Formula Grants

Formula Grants

MA Amount (\$ mil)	Program	Program Description
~6	Energy Efficient Appliance Rebate	Rebates for consumers for replacement of appliances with Energy Star products - Detailed guidance/schedule not issued
122	Weatherization Assistance Program	Increase energy efficiency for low-income households - Dept of Housing and Community Development to hold public hearing on proposed state plan on April 14, 2009 at 1:30pm
~50	State Revolving Fund for Clean and Drinking Water	At least 20% of \$186 million grant to state must be allocated to green infrastructure. State law requires that SRF funded facilities must be on established Intended Use Plan
275*	TOTAL	

*Includes Formula Grants listed in earlier section

Bonds

Bonds

Amount (\$ mil)	Program	Program Description
1,600	New Clean Renewable Energy Bonds (CREBs)	<p>Interest-free bonds for clean energy production facilities allocated 1/3 to state and local governments, 1/3 for public power providers, and 1/3 for electric cooperatives</p> <ul style="list-style-type: none"> - Applications due to IRS by August 4, 2009 - Allocations will be made from smallest to largest as for the old CREBs program
67 for MA; 3,200 national	Energy Conservation Bonds	Interest-free bonds for capital expenditures for a wide range of activities that reduce greenhouse gas emissions allocated to states by population and to local governments

Tax Credits

Tax Credits

Amount (\$ mil)	Program	Program Description
N/A	Extension of Energy Production Tax Credits	Extended for wind facilities through 2012 and all other facilities through 2013
N/A	Investment Credit in Lieu of Production Credit	Facilities eligible for Production Tax Credit may choose a 30% investment tax credit through 2009 and 2010
N/A	Grants in Place of Tax Credits	Projects that qualify for production or investment tax credits may elect to receive a grant worth up to 30% of project cost

Tax Credits

Amount (\$ mil)	Program	Program Description
N/A	Advanced Energy Manufacturing Facility Investment Tax Credit	30% investment tax credit, up to \$2.3 bil cap, to re-equip, expand, or implement manufacturing facility for renewable energy equipment
N/A	Energy Efficiency Tax Credits	Residential consumer tax credits and adjustments to commuting tax credits
N/A	Alternative Fuels and Vehicles Tax Credits	Tax credits for installation of retail and residential alternative fuel infrastructure and for purchase of new plug-in vehicles

Energy Opportunities Funded by Federal Agencies Other than DOE and Treasury

Other Federal Opportunities

Amount (\$ mil)	Program	Program Description
3,690	DoD Facility Infrastructure Investments	Energy efficiency improvements and modernization for DoD facilities
300	DoD Near-term Energy Efficiency Technology Demonstrations and Research	Research, development, test and evaluation projects for improvements in energy efficiency on military facilities and R&D on energy sources from clean and renewable sources
4,500	GSA High-Performance Green Buildings	To convert General Services Administration facilities to high-performance green buildings

Other Federal Opportunities

Amount (\$ mil)	Program	Program Description
300	GSA High-Fuel Economy Vehicles	Purchase of energy-efficient vehicles for use in federal agency fleets
884	Department of Interior Facility Retrofits	Funding for construction activities that may include energy-efficient retrofits <ul style="list-style-type: none"> –\$180 mil for Bureau of Land Management –\$115 mil for U.S. Fish and Wildlife Service –\$589 mil for National Park Service
1,200	State and Tribal Assistance Grants	Grants for water-related used, including energy-efficiency

Other Federal Opportunities

Amount (\$ mil)	Program	Program Description
300	EPA Diesel Emissions Reduction Program	Grants to retrofit or replace diesel engines
500	Department of Labor Workforce Investment Act	Research, labor exchange, and job training for workers in energy efficiency and renewable energy –May also transfer up to \$37.5 mil from Job Corps Centers program
1,000	Department of Veterans affairs Facilities Management	Funds for non-recurring maintenance, including energy projects –\$50 mil to National Cemetery Administration for monument and memorial repairs including energy projects

Other Federal Opportunities

Amount (\$ mil)	Program	Program Description
100	DOT Federal Transit Administration	Grants to public transit agencies for capital improvements to help reduce energy use and emissions of public transit
1,000	HUD Public Housing Capital Fund	Renovations and energy conservation retrofits –Must be awarded by Sept. 30
255	HUD Native American Housing Block Grants	Awards to Native American tribes for new construction and retrofits, including for energy efficiency and conservation

Other Federal Opportunities

Amount (\$ mil)	Program	Program Description
250	HUD Energy retrofit and Green Investments	Grants or loans for energy retrofits and green investments in HUD-assisted housing, awarded to owners of properties
~8,800	DOED State Fiscal Stabilization Fund	Formula grants used for modernization, renovation or repair of public school facilities and higher education institution facilities, including activities that will be consistent with a recognized green building rating system

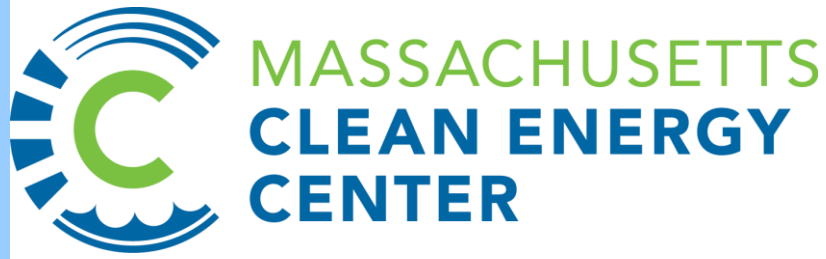
Federal Requirements

Federal Requirements

- Preference to quick-start activities
- American iron and steel wherever possible, with possibility of waiver for allowed reasons
- Labor employed by contractors and subcontractors must be paid at least the prevailing wage for a locality as defined by Davis-Bacon Act
- Compliance with the National Environmental Policy Act (NEPA), *in addition to* compliance with Massachusetts Environmental Policy Act (MEPA)
 - NEPA requires Federal agencies to develop consider a range of environmental impacts of their proposed actions for which they require standardized reporting from recipients of financial assistance
- Historic levels of transparency and accountability, including detailed reporting

Additional Information

- State web pages
 - Clean Energy Center at <http://massCEC.com>
 - Department of Energy Resources at <http://www.mass.gov/eea/recovery>
- Federal web pages
 - Up-to-date announcements of funding opportunities at Grants.gov (search by agency)
 - General information at Energy.gov/recovery (may not be current)
 - Additional general information at individual DOE office websites (may not be current)
- In order for us to best assist you, please submit questions or requests to speak to someone about a specific subject via the following online form and we will get back to you quickly:
 - <http://masscec.com/index.cfm?cdid=10353>



Massachusetts Clean Energy Center

Patrick Cloney,
Executive Director

April 9, 2009

An Act Relative to Green Jobs

Chapter 307 of the Acts of 2008

- Established the Massachusetts Clean Energy Center (CEC) to serve as the state's lead agency to promote and develop the clean energy sector.
- CEC Funding:
 - Alternative and Clean Energy Investment Trust Fund
 - Renewable Energy Trust
- The CEC will support venture creation, company development and workforce development in an industry of the future by:
 - Making direct investments in new and existing companies;
 - Promoting training programs to build a strong clean energy workforce that capitalizes on the job opportunities created by a new industry.



MASSACHUSETTS
CLEAN ENERGY
CENTER

Massachusetts
It's all here.®

Clean Energy Center Mission

- Jobs
 - Early stage
 - Growth stage
- Workforce Development & Training
- Energy Efficiency
- Project Finance
- DOE Presence in MA
- Marketing
- Renewable Energy on State Land
- Offshore Wind
- WTTC



MASSACHUSETTS
CLEAN ENERGY
CENTER

Massachusetts
It's all here.®

Clean Energy Center Role in ARRA

➤ **Goal: Maximize investment in Massachusetts**

➤ Web resources:
www.MassCEC.com

➤ Questions:
<http://www.masscec.com/index.cfm?cdid=10353>

